

neuro-fibrillae differentiate later within this filament. This demonstration is believed to deny the necessity of supposing with Hensen and Schultze and others, that formed structures outside the original nerve cell are largely responsible for the structure and course of the nerve fibers.

CAUSES OF CONJUGATION IN PARAMECIUM

Professor Jennings has recently added to his interesting studies of the Protozoa a study of the conditions determining conjugation in *Paramecium*. He finds that successive conjugations may occur in some cases at intervals of five days and in others of two weeks to a month. In one case conjugation was repeated after only four divisions. In others, divisions were followed for three years with no signs of degeneration and without any conjugation whatever. The conditions that induce conjugation are both internal and external: Internal (inherited), because different stock subjected to exactly similar conditions had vastly varied periods; external, because certain nutritive cycles affect the rate. Starved individuals do not conjugate. Individuals that have been starved and are becoming well-fed do not conjugate. Thriving individuals with declining nutritive conditions tend to conjugate. The author is disposed to believe that senile degeneration due to a long series of divisions which has been thought to be the principal cause of conjugation does not figure as a factor of moment.

POWERS OF RESISTANCE IN PLOPHILA LARVAE

It has been shown that *Plophila* larvae, which are to be found in cheese and are favored by some eaters of cheese, can pass thru the gut of the dog or of man without being injured. It is claimed that they do some damage to the wall of the intestine by the action of their oral hooks and ventral papillae. They are very hardy and resist the action of alcohol and other killing agents for considerable periods of time.

THE BACILLUS OF TYPHUS

W. Predtjetschensky, in *Centralblatt f. Bakteriol. u. Parasit.* 1910, believes that he has discovered the specific Bacillus of typhus fever. His evidences are: The bacilli are found abundantly in blood of patients suffering from the fever, especially about the 6-9